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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/986,622	11/09/2001	Giacomo Stefano Roba	05788.0189	5933

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Finnegan, Henderson, Farabow,
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EXAMINER

HOFFMANN, JOHN M

ART UNIT	PAPER NUMBER
1731	

DATE MAILED: 03/23/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/986,622

Applicant(s)

ROBA ET AL.

Examiner

John Hoffmann

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 March 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 31-50 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 31-50 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on march 3, 2004 has been entered.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 31- 50 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The term "bottom chimney" is indefinite as to its meaning. First it is noted that the specification does not clearly set forth an explicit definition, thus Applicant is not acting as lexicographer. *Johnson Worldwide Assocs., Inc. v. Zebco Corp.*, 175 F3d 985, 989 (Fed. Cir.1999). Second, Examiner did a text search for "bottom chimney"; it does not exist in Class 65: the class in which fiber-making patents are classified. Thus it appears the term is not an art-recognized term. Third, one usually thinks of chimneys as devices that are at above structures from which smoke/gas is removed – not the bottom. Fourth, Page 1, lines 25-28 of the present specification indicates that chimneys

are cylindrical tubes, but figure 1 shows a chimney (B) which is not a cylindrical tube. For these reasons, one of ordinary skill would not be able to discern whether a particular structure is a bottom chimney or not. Therefore one could determine the bounds of the invention.

Likewise "top chimney" is indefinite. Also for the top chimney, the structure adds cold gases to the furnace, rather than serving to remove hot gases. Thus it seems to function as a complete opposite of a chimney as one customarily used. Therefore "top chimney" makes the claim indefinite as well.

Examiner notes that previous Exr. Derrington did not hold the term indefinite. Examiner tried to find something in the record to shed some light on what definitions Derrington used to interpret the claims – but could not.

Claim 34, 3rd to last line refers to "said annular outlet". There is no antecedent basis for an annular outlet. It is unclear if this is suppose to be "annular chamber" or "angled outlet" or something else.

Claim 31 requires that the distributor body forcedly directs the conditioning gas "into" the top chimney. However figure 1, shows that the distributor body 34 is part of the top chimney, and thus any gas that is already in the distributor body has already been placed "into" the top chimney. Thus examiner is unclear if the distributor body is part of the top chimney and/or how to interpret the limitations regarding the flow of gas "into" the top chimney.

Claim 34 has this problem more distinctly: the distributor body introduces the gas “into” the top chimney – in other words, the gas is not in the chimney when it is in the distributor body. However the distributor body defines a path “from the top chimney” (last paragraph claim 34) – examiner interprets this to mean that the path (and thus the distributor body) are part of the top chimney. If the path is not part of the top chimney, it cannot be “from” the top chimney. Thus Examiner cannot understand what the claim requires

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 31-33, 38-39 and 50 are rejected under 35 U.S.C. 103(a) as being unpatentable over Paek 4608473 in view of Harding 4988374, Kaiser 4030901 and Kazuya JP 08091862 as per Applicant's translation thereof.

Paek is cited as a typical induction furnace, but it does not disclose a distributor or the “bottom chimney”. Harding and Kaiser are cited as evidence that it is well known to provide structures on tops of furnaces to seal the furnace and to keep preforms clean, by blowing gas at an angle – just like applicant does. See Harding, col. 1, lines 29-45, col. 3, line 24, and Kaiser col. 3, line 48 to col. 4, line 29. It would have been

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obvious to improve the Paek method by using a distributor and seal on the top, so as to keep contaminants away from the preform

Kazuya teaches that using the tapered shape structure (that appears to be the same or nearly the same as Applicant's bottom chimney) decreases fluctuations in the outer diameter of the preform. It would have been obvious to use the Kazuya teaching to improve the Paek method, for the advantages that Kazuya teaches.

As to the top chimney: it is deemed that Paek's upper tube 62 is an "top chimney" because Applicant has not defined "top chimney" in a manner which would exclude 62. The rest of the limitations are clearly met.

Claims 32-33: The angle is not taught in Harding of Kaiser. It would have been obvious to choose one of the angles as a simple matter of design choice, with no new or unexpected results. Alternatively, it would have been obvious to perform routine experimentation to find an angle which kept the preform clean as that is the intended purpose.

Claims 38-39: claim 39 indicates that the support collar is not attached to the structure of the furnace. More importantly, there is no statement there is any physical relationship between those parts. Thus, the claim is so broad that it reads on a collar that is thousands of miles away. It is reasonable to expect that there is a structure within a thousand miles of Paek that could be considered to be a collar that could be used to hold a preform.

Claim 50: it would have been obvious to make the susceptor as large as desired- depending upon how large a preform one was using.

Claims 46-49 are rejected under 35 U.S.C. 103(a) as being unpatentable over Paek, Harding, Kaiser and Kazuya as applied to claim 31 above, and further in view of Uhm EP 0867412.

As discussed in previous actions, Uhm discloses rigid graphite to be a superior insulation material in the induction furnace art. It would have been obvious to improve the Paek furnace, by using the Uhm insulation material. See how the rest of the claims are met as discussed in the prior Office action.

Response to Arguments

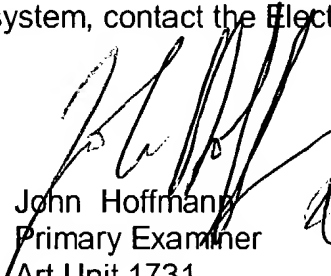
Applicant's arguments have been considered but are moot in view of the new ground(s) of rejection.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to John Hoffmann whose telephone number is (571) 272-1191. The examiner can normally be reached on Monday through Friday, 7:00- 3:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Steve Griffin can be reached on 571-272-1189. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


John Hoffmann
Primary Examiner
Art Unit 1731

46 3-12-04

jmh